

AMENDMENTS TO THE DRAWINGS:

The attached sheet of drawings includes changes to correct a typographical error in Fig. 1. Reference character 43 has been replaced by reference character 48, which is set forth in the specification, e.g., paragraphs 20 and 21.

Attachments: Replacement Sheet including Figs. 1 and 2.
 Annotated Sheet showing changes to Fig. 1.

REMARKS

By this Reply, claims 1, 3, 5-7, 10, 12, and 14-16 have been amended; new claims 19 and 20 have been added; and Fig. 1 has been amended. Accordingly, claims 1-20 are pending in this application. No new matter has been introduced by this Reply.

In the outstanding Office Action, claims 3, 5-7, 12, and 14-16 were objected to for informalities; claims 1, 4-6, 8, 10, 14, 15, and 17 were rejected under 35 U.S.C. § 102(b) as being anticipated by U.S. Patent No. 3,147,635 to Fisher; claims 2, 3, 9, 11-13, and 18 were rejected under 35 U.S.C. § 103(a) as unpatentable over Fisher in view of U.S. Patent No. 3,115,204 to Dence; and claims 7 and 16 were indicated as containing allowable subject matter.

Regarding the objections to the claims, claims 3, 5-7, 12, and 14-16 have been amended according to the suggestions provided in the Office Action. However, instead of changing “said” to “a” in claim 12, line 3, as suggested in the Office Action, claim 12 has been amended to depend on claim 11 to provide antecedent basis for “said wheel assembly.” Accordingly, the objections to claims 3, 5-7, 12, and 14-16 should be withdrawn, and reconsideration is requested.

Claims 1 and 10 have been amended to recite that “each planetary gear train [is] adapted to coactively and drivingly engage the output directly” (emphasis added). Support for these amendments can be found at least in paragraph 19, lines 7-9, and paragraph 22, lines 4-8, of the specification and Figs. 1 and 3.

Claims 3, 7, 12, 16 have been amended to correct minor typographical errors.

Claim 19 has been added to recite that “said at least three planetary gear trains have approximately equal gear ratios.” Support for this new claim can be found at least in paragraph 30, lines 3-8, of the specification.

Claim 20 has been added to recite “a compound gear assembly including at least three planetary gear trains and being in driving engagement with the input, each planetary gear train of said at least three planetary gear trains being adapted to coactively and drivingly engage the output, and an outboard planetary gear train of said at least three planetary gear trains being directly and drivingly engaged by the input, wherein torque generated by the input is distributed to the output by said each of said at least three planetary gear trains.” Support for this new claim can be found at least in paragraph 18, lines 7 and 8, of the specification and Fig. 1.

Regarding the prior art rejections, neither Fisher nor Dence disclose or suggest “each planetary gear train of said at least three planetary gear trains being adapted to coactively and drivingly engage the output directly” (emphasis added), as recited in amended independent claims 1 and 10.

Fisher discloses a transmission having a planetary gearing 20, a forward drive gear unit 22, and a reverse drive gear unit 24, as shown in Fig. 1. Forward drive is achieved using three drive ratios. The first drive ratio is achieved when a first speed coupling 14 of a pump 70 rotates a sun gear 34 of the planetary gearing 20, which rotates a sun gear 38 of the forward drive gear unit 22, and this causes an output planet carrier 26 to rotate the load shaft 12 (see, Fisher, column 2, lines 67-69, and column 4, lines 7-20). The second drive ratio is achieved when a second speed coupling 16 of the pump 70 rotates the sun gear 34 (see, Fisher, column 4, lines 33-41). The third drive

ratio is achieved when a third speed coupling 18 connects directly to the output planet carrier 26 (see, Fisher, column 5, lines 5-12). Thus, for forward drive, only the planetary gearing 20 and the forward drive gear unit 22 rotate the output planet carrier 26.

When reverse drive is desired, the first speed coupling 14 rotates the sun gear 34 of the planetary gearing 20, which rotates a sun gear 54 of the reverse drive gear unit 24, and this causes a reverse carrier 48 to turn the output planet carrier 26 and the load shaft 12 in the reverse direction (see, Fisher, column 5, lines 21-36). Thus, for reverse drive, only the planetary gearing 20 and the reverse drive gear unit 24 rotate the output planet carrier 26.

The Office Action contends that Fisher discloses three planetary gear trains (the planetary gearing 20, the forward drive gear unit 22, and the reverse drive gear unit 24) that are adapted to coactively and drivingly engage the output. However, in forward drive, only the planetary gearing 20 and the forward drive gear unit 22 of Fisher's transmission rotate the load shaft 12, and in reverse drive, only the planetary gearing 20 and the reverse drive gear unit 24 of Fisher's transmission rotate the load shaft 12. Therefore, Fisher does not disclose or suggest three planetary gear trains that are adapted to coactively and drivingly engage the output. Accordingly, for at least the above reasons, claims 1 and 10 are allowable over Fisher.

Dence discloses a power wheel assembly including "three planetary gear sets connected in series" (see, Dence, column 1, line 26). Output elements of the third planetary gear set 48 are connected to a wheel hub 16 to transmit power from the transmission and gear mechanism to the wheel hub 16 (see, Dence, column 1, lines 30-38). Since the three planetary gear sets 44, 46, 38 are connected in series and only the

third planetary gear set 48 is connected to the wheel hub 16, Dence's first and second planetary gear sets 44, 46 are not connected to the wheel hub 16. Only the third planetary gear set 48 directly engages the output. Therefore, Dence does not disclose or suggest at least three planetary gear trains that are adapted to coactively and drivingly engage the output directly. Accordingly, for at least the above reasons, claims 1 and 10 are allowable over Dence.

Fisher and Dence also fail to disclose or suggest all of the limitations recited in new independent claim 20. Claim 20 recites that "each planetary gear train of said at least three planetary gear trains being adapted to coactively and drivingly engage the output, and an outboard planetary gear train of said at least three planetary gear trains being directly and drivingly engaged by the input." Fisher does not disclose or suggest three planetary gear trains that are adapted to coactively and drivingly engage the output, as described above regarding the prior art rejections. Dence does not disclose or suggest an outboard planetary gear train that is directly and drivingly engaged by the input. Dence's first planetary gear set 44 is splined to a shaft 38, which is connected to an output shaft 18 of a motor 12 (see, Dence, column 2, lines 31-38). However, although the first planetary gear set 44 is driven by the motor 12, the first planetary gear set 44 is not in an outboard position. Accordingly, for at least the above reasons, claim 20 is allowable over Fisher and Dence.

Fisher and Deane fail to disclose or suggest at least these limitations recited in claims 1, 10, and 20. Accordingly, the allowance of claims 1, 10, and 20 is respectfully requested.

Claims 2-6, 8-15, and 17-19 are allowable at least due to their dependency from independent claims 1 and 10. In addition, each of claims 2-6, 8-15, and 17-19 recites unique combinations that are neither taught nor suggested by the cited art, and therefore each is also separately patentable.

The Office Action contains characterizations of the claims and the related art with which Applicants do not necessarily agree. Unless expressly noted otherwise, Applicants decline to subscribe to any statement or characterization in the Office Action.

In discussing the specification, claims, and drawings in this Reply, it is to be understood that Applicants are in no way intending to limit the scope of the claims to an exemplary embodiment described in the specification or abstract and/or shown in the drawings. Rather, Applicants are entitled to have the claims interpreted broadly, to the maximum extent permitted by statute, regulation, and applicable case law.

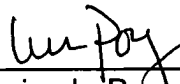
In view of the foregoing amendments and remarks, Applicants respectfully request reconsideration and reexamination of this application and the timely allowance of the pending claims.

Please grant any extensions of time required to enter this response and charge any additional required fees to our deposit account no. 06-0916.

Respectfully submitted,

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Dated: January 9, 2006

By: 
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Attachments: Replacement Sheet including Figs. 1 and 2.
Annotated Sheet showing changes to Fig. 1.



ANNOTATED SHEET

1/2

FIG. 1

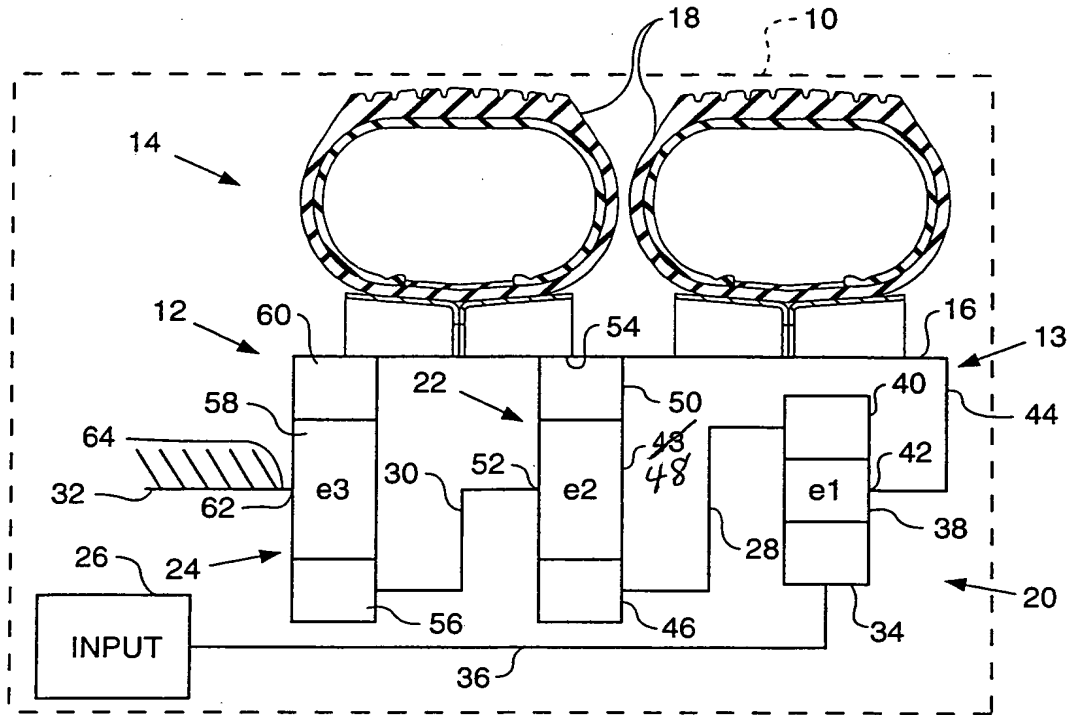


FIG. 2

		LET E3 = 3				
		E2				
E1		2.6	2.7	2.8	2.9	3
2.3		34.12	35.04	35.96	36.88	37.8
2.4		35.56	36.52	37.48	38.44	39.4
2.5		37	38	39	40	41
2.6		38.44	39.48	40.52	41.56	42.6
2.7		39.88	40.96	42.04	43.12	44.2
2.8		41.32	42.44	43.56	44.68	45.8
2.9		42.76	43.92	45.08	46.24	47.4
3		44.2	45.4	46.6	47.8	49